of mica slate, or gneiss. We find too on our way masses of slate several feet accross lying in the granite, and pieces again of the size of a brick, as if they had been imbedded in it in a state of semifusion, so as to form an irregular gneiss. But these appearances are only partial. This granite appears to range in nearly an east and west line. We have crossed three different masses of trap on our journey, besides the diallage rock, I mentioned, to the west of Mussooree, viz. one on the ridge before descending into the valley of the Ganges, and two others in the clay-slate, and talc slate. We could not, in either case, trace their connection with the surrounding rock: but we probably crossed them at nearly a right angle, and, if so, their ranges must approach to a parallel with that of the granite. They had all the characters of a common greenstone. From Gungotree to Dilâree, the river runs through a gloomy chasm in the granite; the branch from Gungotree has rather a dingy hue, but the northern one called the Melung, that comes from Tartary, is, indeed, a beautiful water—as blue as the Rhone when it issues from the lake of Geneva. As the stream becomes larger below Sookee, it is a grand and singular object—with a body of water as great as that at the falls of Schaffhausen, perhaps much greater, it preserved the appearance of a mountain brook during the whole of the time we saw it. There is no perpendicular fall, but the slope is so great that it tumbles and foams over the rocks for the entire distance.

To recapitulate the rocks observed in the order of succession, they are—1, granite; 2, gneiss and mica slate; 3, talcose gneiss and talc-slate; 4, clay-slate; 5, Mussooree limestone; 6, quartz-rock, or rather quartzy-sandstone, and grey wacke slate.

The relative position of these two last, however, needs farther investigation, for there are undoubtedly seams of quartzy-sandstone alternating with the Mussooree formation; one in particular, several feet in thickness, may be observed near the bottom of the hill, just above the village of Rájpoor.

V.—*Note on the Fossil Camel of the Sub-Himálayas.* *By Lieut.* W. E. Baker, *Engineers.*

With reference to a doubt expressed in your Journal for September, the specimens of "Camelidæ" now in our possession, will, I hope, be sufficient to establish the existence of that genus in the fossil state.

They are: A cranium, with portions of both rows of upper molars, shewing also the occipital and parietal bones, so peculiar in the camel.

A fragment of upper jaw with molars.

Two fragments of lower jaw with molars.

The upper and lower extremities of a metacarpal bone (the central piece wanting).

The lower extremity of a radius.

In the above specimens, I have been unable to detect any point of difference from the camel of the country, with which also they appear to correspond in size. The cranium, however, has not yet been cleared from the matrix, which *may* conceal some distinctive mark.

The existence of fossil *Capridæ*, (in which I include antelopes,) is established by numerous specimens of teeth and jaws, and several heads, more or less perfect; these, with the *Cervidæ* and *Bos*, nearly complete the *known* varieties of ruminant of the larger unknown genera: we have yet much to learn.

I have lately seen a nearly perfect fore-leg (consisting of the humerus, radius, cubitus, carpus, metacarpus, and one phalanx), of a ruminant which must have united the height of the camel with the proportions of the bos, judging from the great excess in length of radius compared with that of the humerus and metacarpal bone. Of a similar animal we possess chains of vertebræ, cervical and lumbar, at present buried in matrix; should their clearance determine any interesting point, I shall not fail to communicate it.

Of rhinoceros remains, we have now a plentiful and most interesting collection, comprising, besides teeth, heads, &c., more numerous perfect bones than of any other animal.

Our latest acquisitions are teeth and jaws of the porcupine and rat, several fragments of *fish* with their *scales beautifully* perfect, and a small species of felis about the size of the jungle cat.

P. S. Your fig. 19, Pl. XXXIII. vol. iv. appears to me the upper articulating surface of an axis of horse or camel, whether the former or latter might be judged by the size.

I make this guess, from the appearance of the angle with which the pivot rises out of the flat articulating surface.

In the bullock, antelopes, goat, sheep, and stag, the rise is nearly perpendicular: in the horse or camel, it has a concave shape. Fig. 19, is apparently much interwoven; the axis which I have supposed may belong to the elk*, is not in its proportions similar to the corresponding bone of the camel, but belongs to an animal with a shorter and thicker neck.

* See plate XLIV. and page 506.